BRUHAT BANGALORE MAHANAGARA PALIKE

Project: Improvements to Roads and Drains at Sadiq Layout(Defence Layout) in Ward No 06 Byatarayanapura Sub Division

Construction Cost: 5000000.00

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
1	KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.133, I.No.19.1 of PW, P&IWTD SR 2016-17)								
	Desilt	Cum							
	Sadiq Layout								
	1st Cross		2	40.00	0.45	0.50	18.00		
	2nd Cross		2	40.00	0.45	0.50	18.00		
	Road 2		1	25.00	0.45	0.50	5.63		
	Road 3		1	25.00	0.45	0.50	5.63		
	Vidya Sagar Layout								
	1st Main Road		2	250.00	0.45	0.50	112.50		
							159.75	170.92	**27304.47**
	Basic rate	**82.00**							
	Loading and unloading with 5km lead= 68+2.5x1.28x10 =	**84.00**							
	Area Weightage 6%	**4.92**							
	Final Rate	**170.92**							
2	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete.(5.31.1								
	Desilt	Cum							
	Sadiq Layout								
	Road 2		1	25.00	1.35		33.75		
	Road 3		1	25.00	1.35		33.75		
							67.50	665.68	**44933.40**
	Basic rate	**628.00**							
	Area Weightage 6%	**37.68**							
	Final Rate	**665.68**							
3	KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.142, I.No.19.14 of PW&P&IWTD S.R 2016-17)								
	Road Formation	Cum							
	1st Cross		1	40.00	4.50	0.23	41.40		
	2nd Cross		1	40.00	4.50	0.23	41.40		
	Road 2		1	25.00	5.00	0.23	28.75		
	Road 3		1	25.00	5.00	0.23	28.75		
	Vidya Sagar Layout								
	1st Main Road		1	210.00	5.50	0.23	265.65		
	1st Cross		1	32.00	4.80	0.23	35.33		
	2nd Cross		1	32.00	4.80	0.23	35.33		
	3rd Cross		1	30.00	5.40	0.23	37.26		
	4th Cross		1	32.00	3.80	0.20	24.32		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	th Cross		1	32.00	3.00	0.20	19.20		
	6th Cross		1	30.00	4.00	0.20	24.00		
	7th Cross		1	32.00	3.80	0.20	24.32		
	Road 1		1	15.00	3.80	0.20	11.40		
	Afza Layout								
	Cross Road 1		1	24.00	3.80	0.20	18.24		
	Cross Road 2		1	25.00	3.70	0.20	18.50		
	Cross Road 3		1	28.00	4.20	0.20	23.52		
	Cross Road 4		1	26.00	3.80	0.20	19.76		
	Cross Road 5		1	24.00	3.80	0.20	18.24		
							715.37	132.76	**94971.99**
	Basic rate	**46.00**							
	Loading and unloading with 5km lead= 68+2.5x1.28x10 =	**84.00**							
	Area Weightage 6%	**2.76**							
	Final Rate	**132.76**							
4	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No. 12/I.No. 4.2 of CSR 2015-16)								
	Road	Cum							
	Vidya Sagar Layout								
	1st Cross		1	32.00	4.80	0.20	30.72		
	2nd Cross		1	32.00	4.80	0.20	30.72		
	3rd Cross		1	30.00	5.40	0.20	32.40		
	4th Cross		1	32.00	3.80	0.20	24.32		
	5th Cross		1	32.00	3.00	0.20	19.20		
	6th Cross		1	30.00	4.00	0.20	24.00		
	7th Cross		1	32.00	3.80	0.20	24.32		
	Road 1		1	15.00	3.80	0.20	11.40		
	Afza Layout								
	Cross Road 1		1	24.00	3.80	0.20	18.24		
	Cross Road 2		1	25.00	3.70	0.20	18.50		
	Cross Road 3		1	28.00	4.20	0.20	23.52		
	Cross Road 4		1	26.00	3.80	0.20	19.76		
	Cross Road 5		1	24.00	3.80	0.20	18.24		
							295.34	5348.76	**1579702.78**
	Basic rate	**5046.00**							
	Area Weightage 6%	**302.76**							
	Final Rate	**5348.76**							

Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
5	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M20 (at 300Kg per cum coarse aggregate @ 0.64cum and fine aggregate @ 0.43cum)(22.2.6)								
	Road	Cum							
	Vidya Sagar Layout								
	1st Cross		1	32.00	4.80	0.15	23.04		
	2nd Cross		1	32.00	4.80	0.15	23.04		
	3rd Cross		1	30.00	5.40	0.15	24.30		
	4th Cross		1	32.00	3.80	0.15	18.24		
	5th Cross		1	32.00	3.00	0.15	14.40		
	6th Cross		1	30.00	4.00	0.15	18.00		
	7th Cross		1	32.00	3.80	0.15	18.24		
	Road 1		1	15.00	3.80	0.15	8.55		
	Afza Layout								
	Cross Road 1		1	24.00	3.80	0.15	13.68		
	Cross Road 2		1	25.00	3.70	0.15	13.88		
	Cross Road 3		1	28.00	4.20	0.15	17.64		
	Cross Road 4		1	26.00	3.80	0.15	14.82		
	Cross Road 5		1	24.00	3.80	0.15	13.68		
							221.51	5508.82	**1220258.72**
	Basic rate	**5197.00**							
	Area Weightage 6%	**311.82**							
	Final Rate	**5508.82**							
6	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(22.7)								
	Road	Cum							
	Vidya Sagar Layout								
	1st Cross		1	32.00	4.80		153.60		
	2nd Cross		1	32.00	4.80		153.60		
	3rd Cross		1	30.00	5.40		162.00		
	4th Cross		1	32.00	3.80		121.60		
	5th Cross		1	32.00	3.00		96.00		
	6th Cross		1	30.00	4.00		120.00		
	7th Cross		1	32.00	3.80		121.60		
	Road 1		1	15.00	3.80		57.00		
	Afza Layout								
	Cross Road 1		1	24.00	3.80		91.20		
	Cross Road 2		1	25.00	3.70		92.50		
	Cross Road 3		1	28.00	4.20		117.60		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	ross Road 4		1	26.00	3.80		98.80		
	Cross Road 5		1	24.00	3.80		91.20		
							1476.70	95.40	**140877.18**
	Basic rate	**90.00**							
	Area Weightage 6%	**5.40**							
	Final Rate	**95.40**							
7	KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.157, I.No.20.18 of PW,P&IWTD SR 2016-17)								
	Road Formation	Cum							
	1st Cross		1	40.00	4.50	0.23	41.40		
	2nd Cross		1	40.00	4.50	0.23	41.40		
	Road 2		1	25.00	5.00	0.23	28.75		
	Road 3		1	25.00	5.00	0.23	28.75		
	Vidya Sagar Layout								
	1st Main Road		1	210.00	5.50	0.23	265.65		
							405.95	1768.08	**717752.08**
	Basic rate	**1668.00**							
	Area Weightage 6%	**100.08**							
	Final Rate	**1768.08**							
8	KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.160, I.No.21.6 of PW,P&IWTD SR 2016-17)								
	Road Formation	Sqm							
	1st Cross		1	40.00	4.50	--	180.00		
	2nd Cross		1	40.00	4.50	--	180.00		
	Road 2		1	25.00	5.00	--	125.00		
	Road 3		1	25.00	5.00	--	125.00		
	Vidya Sagar Layout								
	1st Main Road		1	210.00	5.50	--	1155.00		
							1765.00	27.56	**48643.40**
	Basic rate	**26.00**							
	Area Weightage 6%	**1.56**							
	Final Rate	**27.56**							
9	KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.160 I.No.21.7 of PW,P&IWTD SR of 2016-17)								
	For Laying BC	Sqm							
	Sadiq Layout -								
	1st Cross		1.00	40.00	4.50	--	180.00		
	2nd Cross		1.00	40.00	4.50	--	180.00		
	Road 2		1.00	25.00	5.00	--	125.00		
	Road 3		1.00	25.00	5.00	--	125.00		

Sl. No.	Description of work	Unit	No.	Length m	Breadth m	Depth m	Quantity	Rate in Rs.	Amount in Rs.
	Vidya Sagar Layout								
	1st Main Road		1.00	250.00	5.50	--	1375.00		
							1985.00	11.66	**23145.10**
	Basic rate	**11.00**							
	Area Weightage 6%	**0.66**							
	Final Rate	**11.66**							
10	KSRRB M500-19. Providing and laying bituminous concrete 40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 6% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORT&H specification clause No. 500.9 complete in all respects as per specifications, MORTH Specification No. 509 (P.No.164 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17)								
	Road Formation	Cum							
	Sadiq Layout								
	1st Cross		1	40.00	4.50	0.04	7.20		
	2nd Cross		1	40.00	4.50	0.04	7.20		
	Road 2		1	25.00	5.00	0.04	5.00		
	Road 3		1	25.00	5.00	0.04	5.00		
	Vidya Sagar Layout								
	1st Main Road		1	250.00	5.50	0.04	55.00		
							79.40	7083.98	**562468.01**
	Basic rate	**6683.00**							
	Area Weightage 6%	**400.98**							
	Final Rate	**7083.98**							
11	KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.197, I.No.24.15 of PW,P&IWTD SR 2016-17)								
	Edge line								
			2	380.00	0.10	--	76.00		
							76.00	542.72	**41246.72**
	Basic rate	**512.00**							
	Area Weightage 6%	**30.72**							
	Final Rate	**542.72**							
								Total Construction Cost	**4501303.85**
12								**Tender Premium 10%**	**450130.39**
13								**Cost towards Third Party Inspection @ 1%**	**45013.04**
								Sub Total	**4996447.27**
14								**Miscellaneous and rounding off**	**3552.73**
								Total	**5000000.00**

ADMINISTRATIVE APPROVAL
Accorded For Rs. Fifty lakhs only
Head of A/c P-3111
Div. Ref. No. 99/19/12/17 Date 19/12/17
AE EE(BTP)

Technical Sanction
Accorded For Rs. 50 lakhs only
Head of A/C P-3111
GER NO 15/19/17-18 Dt: 22.12.17
TA to CE (YNK)

Certificate.

1 The workspot was inspected and work is found to be necessary.
2 The area comes within the Bruhat Bangalore Mahanagara Palike limits.
3 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
4 The provisions made in the estimate are necessary and essential.

Assistant Engineer

Assistant Executive Engineer

Executive Engineer 19/12

BRUHAT BANGALORE MAHANAGARA PALIKE

to Roads and Drains at Sadiq Layout(Defence Layout) in Ward No 06 Bya

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ., ಬೆಂಗಳೂರು-26

DATE	No. OF PRINTS	PRINTS ISSUED TO	SIGN

DATE	REVISION	DESCRIPTIONS	SIGN

LEGEND:-

ASPHALT ROAD — BC

CC ROAD

DRAIN

KEY MAP – Sadiq Layout